Abstract

A system that detects the location as well as the luminance transition range of slant image edge in a digital image. The variance value of the pixels inside a

5   rectangular image window centered with a current pixel is checked to determine if the current pixel is in an edge region or a in non-edge region. If the current pixel is in a non-edge region, no further checking is performed. Otherwise, it is determined if the current pixel is a center

10   pixel in a luminance transition range of a slant edge. The values of the current pixel and its neighboring pixels inside the rectangular window are used to determine if the selected pixel is the center pixel in a luminance transition range of a slant edge. If it is, then the exact length of

15   the luminance transition range of the slant edge is determined. Through such a detection process, both the center position and the luminance transition range of slant image edge can be determined.